Trauma and Resources in Sand Play TRiS©

An application of bilateral stimulation in sand play trauma therapy

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Neurobiological foundation of our proceedings

The Persona is the process of structuring the content of consciousness by choosing, conceptualizing, validating, limiting, making up a story about it, creating a personal myth. According to Jungian analytical psychology it is the essential counterpart to the Self in the Ego-Self-Axis. Sand play creations have the potency to symbolize, externalize and make accessible processes between Ego and Self that is the essence of the individuation process.

A traumatic complex builds up under extreme stress. This is a process both physiological and psychological.
Extreme stress means: the stimulus barrier is broken through and the sensory overload effects in brain dysfunction. The function of the persona brakes down. The Ego-Self-Axis is severely impaired.

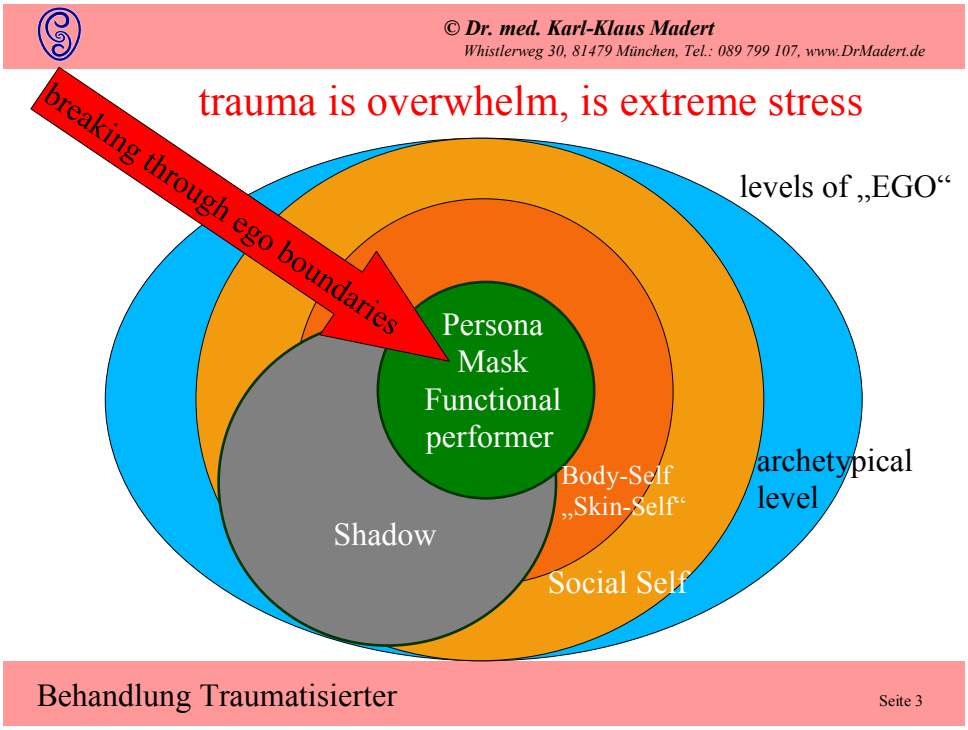


Fig. 1

The creation of a consistent figure of reality is the result of an active work of our brain. This involves the binding of the different modalities of our senses as well as creating a meaning out of our perceptions. In the condition of extreme stress this binding function is overtaxed. From the viewpoint of normal function this seems like a cut off. But it is a malfunction.

The result is primary dissociation. Instead of a consistent figure of experience there are only fragments to be stored in memory. This is due to the malfunction of the brain. Primary dissociation is failure of function, not „defence“! The persona falls apart. There is no longer a consistent counterpart of the Self that brings the Self into real life.
In case the stress situation endures, the brain can not make up for integrating the dissociated experience. The stress situation as a whole is stored inclusive the alert state and the cognition of having failed to solve the problem. This is fundamentally important in case of being threatened by an act of physical or psychological violence by another human person, because this establishes an inner image of a relational experience. E.g.: I'm helpless, I'm not worth to be respected, I have to submit myself in order to survive. The world of humans is dangerous.
To compensate this devastating experience a traumatic complex develops. A secondary compensation is established both on a level of bodily postures and a level of character attitudes that is called character armour or trauma compensation.
Nevertheless situations or cues that remind of the original traumatic situation can trigger a trauma state as if the person is in danger again. The "felt sense" changes in a feeling of danger. But this is a top-down projection of the traumatic complex into the body.

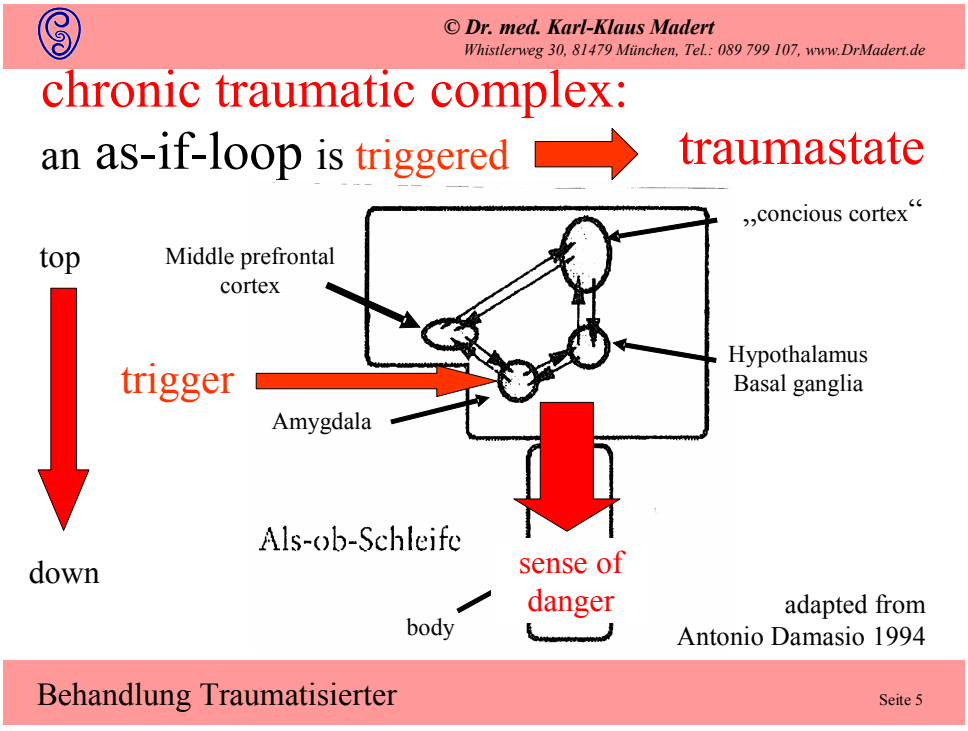


Fig. 2

The immediate answer to a dangerous situation is mediated by the sympathetical fight-flight-system. It reacts within 10 to 15 milliseconds with an involuntary

reaction of the emotional limbic system and an involuntary movement, primarily executed by the extrapyramidalmotoric system of the basal ganglia. Because of this immediate response it is called the **hot system** of stress reaction.
There is also a **cold system** of slower rational assessment, mediated by the cortex. It takes about 200 milliseconds to create a conscious cognitive evaluation of the situation und to figure out a solution to the problem.

In a traumatic situation unbearable stress arises, because there is no solution to the problem. There is no rational break to the stress activation and the stress reaction goes on as long as there is no solution and the stressful situation has not found a solution.
Fight and flight are the natural reaction to a life threatening danger. The sympathetic nervous system is activated. When there is no solution to the threat by fight or flight, panic comes up or freezing.
The vagal system is the antagonist to the sympathetic stress activation and limits its activation. It works like an emergency stop.

It has two parts.
The **Dorsal Vagus** is phylogenetically old:
when extreme stress becomes damaging high an emergency stop stops the over speed in a cataleptic reflex. The person collapses. This shock response is already available before birth.
The neurons of this system are not myelinized.

The **Ventral Vagus** builds up not until the 2nd and 3rd year of life by myelinized neurons. It mediates affect modulation by the ventral prefrontal cortex.
This means:
Little children are not capable of modulating their stress response by cortical action. They need the stress modulation capacities of their caretakers.
In consequence: unsolved stress patterns built before the 2nd to 3rd year of life are not at all represented in cortical structures.
Under the viewpoint of therapy they have to be addressed on the level of limbic and extrapyramidalmotoric structures.

Imagination of resources creates a healthy persona state.

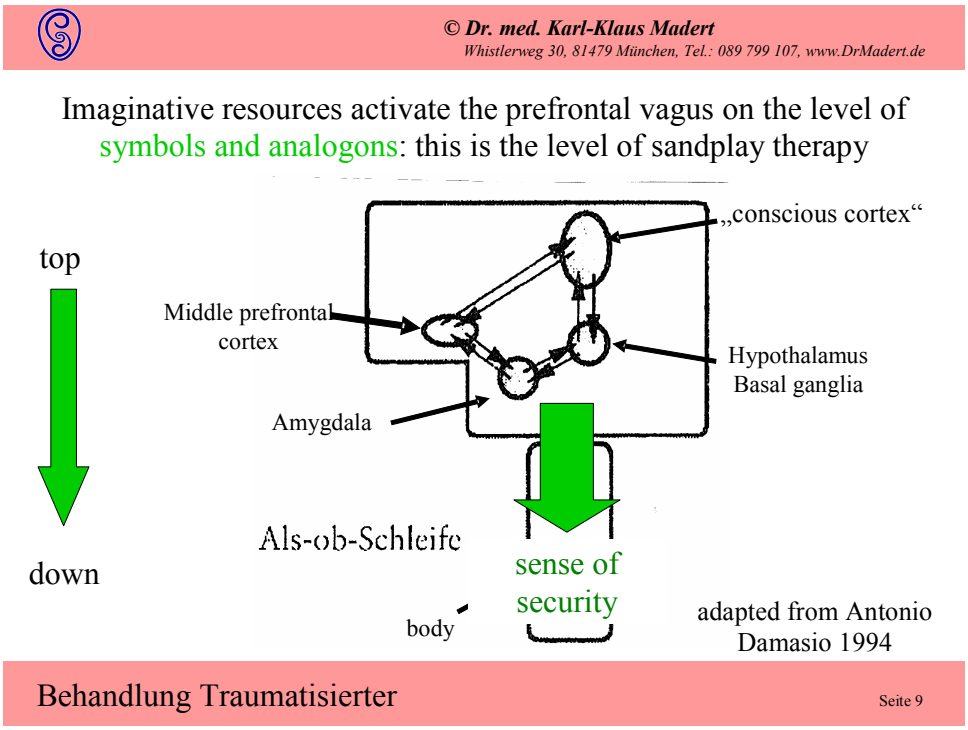


Fig. 3

Imaginative resources activate the prefrontal cortical ventral vagus system. Imagination works on the level of symbols and analogy. This is a cortical function. Dissociation and symbolization are incompatible. Sometimes the cortex uses analogue imaginations to “describe” a traumatic state. But because of the primary dissociation in these analogies important parts of the “gestalt” are missing: the representation of the dissociated original body sensations and feelings. Further more in case of the traumatic state originates before the ventral vagus system has built up the structure of the system was not yet capable of symbolizing at all. The result is a deficit of psychic structure that has to be taken in consideration when undertaking therapy with these persons.

Sand play therapy uses the cortical function of symbolization. Imagination takes place on a cortical level. Imagination may mask a trauma state.

Analogue imagination may be used to access the traumatic complex. But unlike symbolizations on a more mature level sand play therapy without integrating the bodily level will not come out with a major change of the traumatic condition. It may modulate the present physical, emotional and mental state via the prefrontal cortex like activating a resource state, but will not change the physiological base of a triggered trauma state on the level of the limbic and extrapyramidalmotoric system.

I pointed out the two systems of answer to danger:
the immediate involuntary unconscious reaction of the hot system and
the delayed cortical evaluation.

There is a correspondence of this in the memory system. The immediate answer is stored in the implicit memory, involuntary, unconscious. Most of it is archetypical and genetically preformed.

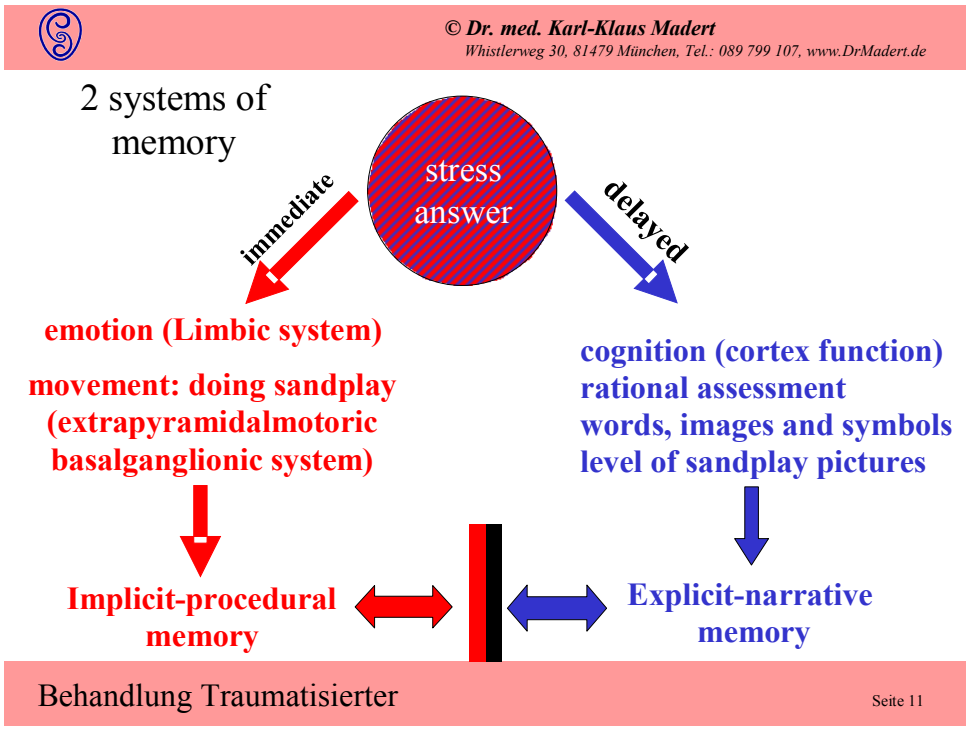


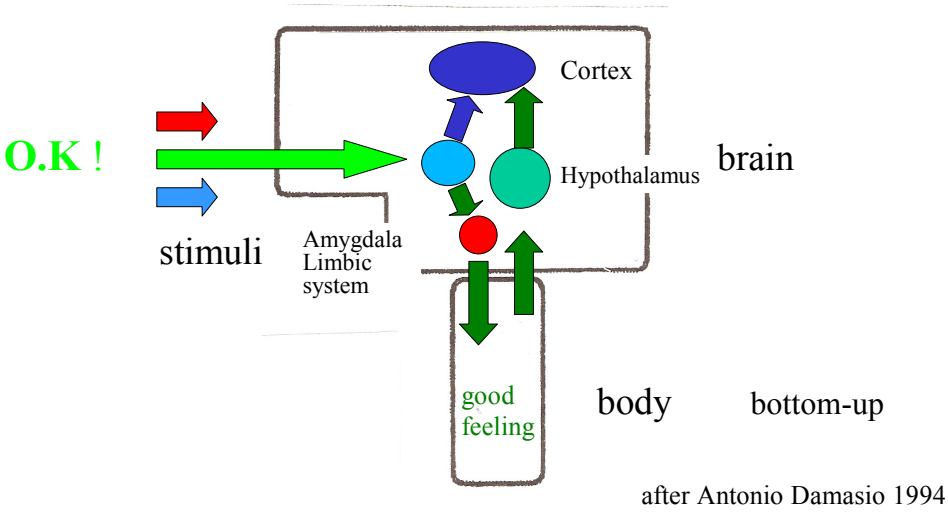
Fig. 4

Only the explicit part of the reminiscence of the traumatic situation can be remembered voluntarily and can be talked about. But talking about will not necessarily change the implicit readiness of reacting immediately to a threatening or dangerous situation similar to the original traumatic situation. In consequence: in therapy we have to address the implicit memory in order to change the habitual overreaction to potentially dangerous situation resembling the original traumatic situation.

To give a short summarize:
Triggers activate a traumatic as-if-loop. The original trauma state with its survival patterns is evoked. This happens involuntarily. The persona contracts and the presence shrinks to the functional level of the traumatic situation, that is surviving!

Therapy aims to connect the explicit and - very important - the implicit part of the memory of the traumatic situation with a good, safe feeling of being able to manage the danger, at least today. This is only possible, when the body feeds back to the implicit memory system the condition of a state of safety.

salutary condition for curing a traumatic complex



after Antonio Damasio 1994

Fig. 5
This is a bottom-up-feedback.

To put it with words of Antonio Damasio: “To be effective the process has to have shown up on the stage of the body, so to speak has to have looped through the body first.”
The human memory is not like a tape recorder. Every time we recall a memory, this content is activated in a labile state. Then the content is connected with the present state and restored again. We cannot remember without changing our reminiscences. My conclusion: the basic principle of therapy of a traumatic complex is state-dependent restoring.

basic principle of therapy of a traumatic complex:
state-dependent restoring

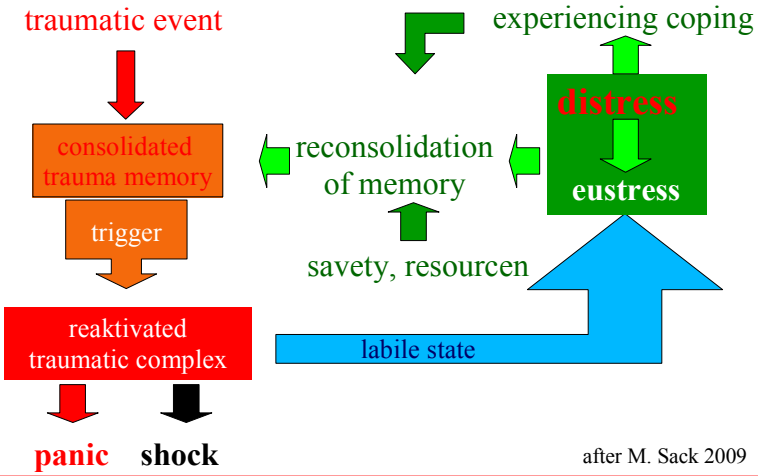


Fig. 6

This means also: when we recall a traumatic situation, the original stress answer is recalled also. We are going into the same trauma state. Unless we modify this stress answer on a bodily level, we will only reinforce the traumatic memory loop by recalling it. This is called retraumatization.

The art of trauma therapy is made of

- evoking the trauma state while at the same time
- providing by means of a safe body state in an eustress condition an alternative frame of safety, coping capacity and richness of resources.

The eustress situation while processing a traumatic memory is of fundamental importance to avoid retraumatization.

For this the safety in therapy and the understanding of the therapist is crucial. Watching out for the stress level of the patient during confrontation and interfering immediately, when dissociation occurs, the therapist has the function of modulating the stress level. This sometimes needs direct intervention, mainly when dissociation occurs.

Structure is crucial to give safety and to prevent retraumatization.

Sand play creations can and will represent some analogy of the original traumatic situation. They represent the tendency of the psyche to make topical the unresolved trauma complex (zeigarnik's effect) and at the same time they are creations to banish the evoked trauma state. By shaping and putting into action an overwhelming experience beyond words they try to handle the devastating feeling of helplessness. Helplessness arises of necessity when facing an irresolvable thread of existence that is constitutional to trauma. Nobody will expose himself to this feeling without being helped actively to confront and not avoid it. In case of trauma the self healing capacities of the psyche has been

overwhelmed and the salutary environmental conditions had missed or failed to support spontaneous recovery.
Because of this contradiction in itself while activating and confronting involuntarily or by purpose traumatic content in sand play creations we can not allow free association to take over completely. On the functional level of trauma (that is a level of dysfunction!) the psyche is not capable of restructuring itself without therapeutic help. Either it will dissociate or it will avoid the devastating feeling of helplessness by whatever "beautiful" sand play creations. Only in an eustress situation and with the support of a sharing and actively empathetic helper the self healing capacities will be restored. And they are!

The confrontation of the trauma complex has to happen on five basic levels. This ensures that the implicit and explicit memory is addressed.

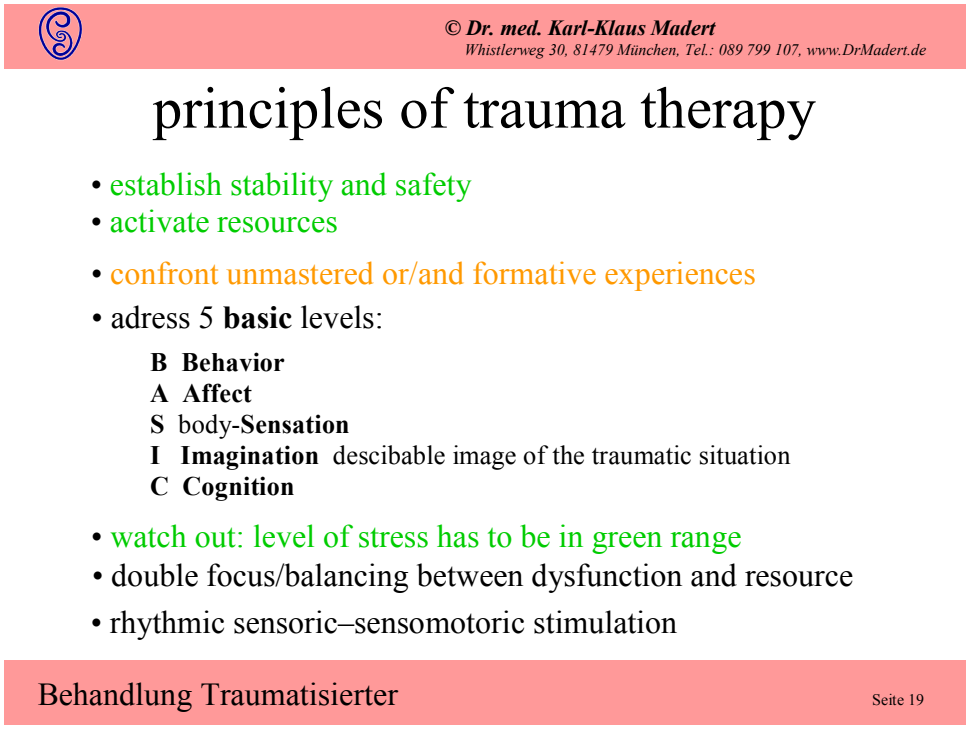


Fig. 6

One of the most effective techniques of lowering the stress level is bilateral stimulation that activates the vagus system on a sensomotor level and activated the body out of the shock and freezing response. There are more than one hundred scientific studies that support evidence of the effectiveness of sensory and sensomotor stimulation in trauma therapy. These techniques are vastly explored in the method of Eye Movement Desensitisation and Reprocessing EMDR® initiated by Francine Shapiro (1995) and scientifically recognized as evidence based medical method in the general health care system of Germany.

A person in a trauma-state is in such an urge to solve the trauma-state, that she may be overwhelmed again when confronting the trauma. That is, because she is

not mindfully enough to recognize her trauma state that is a state of very high stress. The trauma state is repeated. Retraumatization occurs.
A traumatized person has the urge to express his trauma in the sand play picture and can be overwhelmed and retraumatized by doing so.

Our therapeutic structure aims to minimize this danger. We limit the possibility of free association and we take over partly the patient's impaired stress management.
We exemplify this procedure in a

Case example

(The colours refer to the stress traffic lights)

Nearly 17 year old girl MEL with parents with alcohol and drug abuse; many situations of neglection. Separation when she was 3 years old. She has a 4 years elder brother.
An alcoholic step-father.
Her mother strangled her heavily when she was 12 years old, the neighbour saved her. Then placed in an institution for 2 years, before she was given as a child in care to the family of her uncle, brother of the mother, with 2 cousins 3 + 6 years old.
The patient's mother died 1 ½ years ago by cancer, the girl was 15 years old.
Then the adolescent was expelled from academic high school. At the time of the video she was frequenting a commercial college which ends 2014 with the certification of secondary school.

Diagnosis ICD 10: Reactive avoidant attachment disorder, disorganized (F94.1), anxiety and depression mixed (F41.2), PTBS incomplete (F43.1)

We have been working just a few times with this method of TRiS. The patient elaborated still being strangled, but she didn't like to have a video of it.
The traumatic situation I present now is not so dramatic, but it points out well the technique. Then she was 11 years old.
Before working with the sand we first made an agreement on which traumatic situation we were going to work and the theme involved.

TH (Therapist)**:** Please pick up figures for your resources that you are needing for this theme:

You being important.

Pick up figures that emphasize your importance.

Picture Tris 1 Resource

MEL: That's my uncle for whom I was important.
This is a person standing for all my friends for whom I am important, too.
My opi, for whom I am the beloved granddaughter, but it is not allowed to say this.
TH: You are the first granddaughter.
MEL: This is my brother, because I am his little Melissa. I think, when something bad happens to me he will be very angry.
TH: You have placed persons for your resources. Perhaps there are some symbols for your inner strength, that shows you that you are precious, where you have the feeling that you are one with, representing a part of yourself.

TH: Shall we install it? What was the positive sentence?
MEL: I am important.
TH: I will be standing behind you tapping your shoulders. You feel your body while concentrating on the resources.
Do you still agree with the positive cognition: >I am important> or do you have a better idea?
MEL: I am precious!

TH: Did you get it? Where do you feel that you are precious in your body?
MEL: Everywhere, warm, it feels good.

Resources:

- Karussell: Merry-go-round: Well doing with children
- Lioness holding her baby in the mouth: sensitivity and protection
- deer: inner strength

Trauma
on the other side of the sand tray the traumatic situation:

Picture Tris 2 Trauma

MEL: I had not understood everything of my homework and I had asked my mother if she could help me. She was sitting on the terrace with my step-father and friends drinking. My step-father replied: Make it by yourself, your mother doesn't have time for you now. My mother followed his advices. He took her life.
TH: Your mother wasn't responding to you?
MEL: She obeyed him.
TH: How did you feel in this moment?
MEL: Worthless, unfairly treated and unimportant in relation to my stepfather.

TH: Do you remember a feeling related to your mother?
MEL: Disappointment and rage.
TH: Perceiving it, how intense is the distress at a scale between zero to ten?
MEL: 6-7
TH: Where do you feel it in the body?
MEL: In the belly.
TH: How do you feel it?
MEL: Cramped and empty.

TH: o.k., let's work with it. Alternately look at the resources and the traumatic situation. (Bridging, making the neuronal connection, reconsolidation and reframing of memory)

Picture TRiS 3 Integration

Tapping (sensomotoric stimulation)
TH: Now you can change something in the sand tray, add something, but don't remove anything. (behavior, action)
MEL: I have put my brother behind me.
Tapping
MEL: I have put my friends behind me.
Tapping
MEL: My uncle between me and my mother.
TH: Do you know a sentence (cognition) for your uncle he may say?
MEL: To my mother? Stop it!
Tapping
MEL: My grandpa beside me and behind my uncle. He would say the same.
TH: Can you add something else?
MEL: That I deserve something better than being treated like this.(cognition)
TH: Say it directly as you being your grandfather. (behavior)
MEL: Melissa has deserved something better than being treated like this.
Tapping
MEL: My Cousins. Children are loving someone without conditions. (cognition)
Tapping
MEL: I have put myself (Lioness) in front of me.
TH: Which part of you is it?
MEL: the sensitive and protective part.
Tapping
MEL: The dear means that I have inner power even if I am not showing it.

Evaluation and Integration

TH: How intensive is now your distress considering the original picture with the Negative Cognition: <I am unimportant/ worthless> between zero to 10?
MEL: Zero
TH: What would be the positive sentence instead?
MEL: I am worthy! (cognition)
TH: Now you take this picture with you and the sentence <I am worthy>. We will anchor it. Breath deeply.
Body scan
If you want you can draw a picture of your worthiness. (cognition, behavior, imagination)

She did and painted a pearl.

These are the advantages of using TRiS in sand play trauma therapy:

- **externalization**: the sand play arrangement recalls and symbolizes the trauma complex at the same time.
- **triangulation**: the persona / the conscious self witnesses trauma and resources from a distant viewpoint.
- **proportions:** the big persona looks at the small sand play figures in the arrangement of her traumatic complex.
- **grounding**: the sand play is created in an upright standing position, feet on the ground, moving, sensing.
- **control**: acting and creating out of his/her self healing capacities (in Jungian terms: out of his/her Self) the patient is in charge of changing his/her trauma related memory.
- **stress management:** the therapist takes over in helping the patient modulating his/her impaired stress management.

References:

see and refer to
www.DrMadert.de : Self Reference and Empathy in Trauma Therapy

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